

The Digital Work Force

STATE DATA & RANKINGS

OFFICE OF TECHNOLOGY POLICY

U.S. DEPARTMENT OF COMMERCE

California, Texas and New York lead Nation in number of core IT workers; Colorado, Virginia and Massachusetts have highest proportion of IT workers

Information technology is reshaping the global economy—enhancing productivity, spurring economic growth and creating jobs. Two-thirds of recent productivity growth in the United States is attributed to information technology. Information technology’s share of the U.S. economy nearly doubled between 1977 and 1998. The number of people working in core IT occupations grew six times faster from 1983 to 1998 than the overall U.S. work force. And highly-skilled information technology jobs are projected to be among the fastest growing of all occupations over the next decade.

These trends have significant implications for U.S. competitiveness, American companies and universities, and policy makers at all levels of government. State and local government policies have played an important role in fostering the development of the Nation’s technical work force and it is likely that states will play an increasingly important role in the years ahead. In the New Economy, a state or region’s ability to attract capital and companies is integrally linked to the quality of its work force. Thus, a state’s ability to grow, attract and retain these workers will have a significant impact on its economic development and the standard of living and quality of life of its citizens.

To provide decision makers with timely and relevant information, the Office of Technology has conducted analysis, held town meetings across the country, and produced several reports shedding light on the composition of the Nation’s information technology work force, identifying the unique challenges the United States faces in meeting the high demand for these workers, and developing policy responses to these challenges.

In this latest report, the Office of Technology Policy presents the findings of its analysis of the most recent state occupational data (1998) from the Department of Labor’s Bureau of Labor Statistics to provide a snapshot of the current composition of the Nation’s IT work force at the state level and to assess the relative position of the states’ core IT occupations.

Several indicators are used in this assessment including:

- *Size of the Work Force*—the number of workers employed in an occupation.
- *Average Annual Wages*—the estimated mean hourly wage of an occupation multiplied by 2,080 hours.
- *State Intensity*—the share an occupation comprises of a states’ entire work force.
- *State Index**—the ratio of the State Intensity to the U.S. Intensity for an occupation, where the U.S. score would be 100. A state with an Index score of 200 would have an IT Intensity twice that of the nation as a whole’ a state with an Index score of 50 would have an IT Intensity half that of the nation.

For the purpose of this analysis, the Office of Technology Policy defines the core information technology work force as being comprised of six occupations: computer engineers, computer programmers, systems analysts, database administrators, computer support specialists and all other computer scientists.

This document includes seven tables with state rankings. Table 1 ranks the states based on the size and intensity of their total core information technology work. Tables 2 through 7 rank the states based on size, intensity and annual average wages for each of the core information technology occupations. Table 8 provides a list of states with their ordinal rankings in Tables 1 through 7.

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* The Office of Technology Policy extends its thanks to the Software and Information Industry Association for its development and advocacy of the State Index applied in this analysis as a comparative tool.

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This document is intended to provide additional information to decision makers, but it is important to note that the data in this report provides a snapshot of the information technology work force in the states in 1998. This document does not assess trends, nor does it provide a qualitative analysis of each state's core IT work force.

Additional information on the Nation's information technology work force and other technology policy issues can be found at <http://www.ta.doc.gov/reports>

Table 1. State Core Information Technology Employment

State Rankings by Size of Core IT Work Force		
Rank	State	Core IT Workers
1	California	275,420
2	Texas	150,150
3	New York	137,660
4	Illinois	114,800
5	Virginia	94,630
6	Florida	91,970
7	New Jersey	90,010
8	Massachusetts	84,630
9	Pennsylvania	79,200
10	Ohio	71,670
11	Georgia	64,930
12	Michigan	64,170
13	Maryland	61,560
14	Colorado	59,100
15	North Carolina	56,470
16	Minnesota	50,800
17	Washington	38,080
18	Missouri	37,560
19	Arizona	34,850
20	Wisconsin	33,180
21	Connecticut	33,100
22	Indiana	28,650
23	Tennessee	27,450
24	Oregon	24,390
25	Alabama	19,890
26	Utah	16,620
27	Oklahoma	16,600
28	Kentucky	16,360
29	Iowa	16,280
30	Kansas	14,740
31	Nebraska	14,730
32	South Carolina	14,540
33	Louisiana	12,120
34	District of Columbia	7,960
35	New Hampshire	7,890
36	Delaware	7,700
37	New Mexico	7,210
38	Arkansas	6,910
39	Mississippi	6,340
40	Nevada	6,060
41	Idaho	5,610
42	Puerto Rico	5,440
43	Rhode Island	5,420
44	Maine	4,770
45	Hawaii	4,530
46	North Dakota	4,280
47	Vermont	4,210
48	West Virginia	3,940
49	South Dakota	3,890
50	Alaska	2,750
51	Montana	2,620
52	Wyoming	1,120
53	Guam	310
54	Virgin Islands	40
Total U.S. Core IT Workers		2,045,310

State Rankings by Core IT Worker Intensity			
Rank	State	Intensity	State Index US=100
1	Colorado	2.94%	179
2	Virginia	2.93%	178
3	Massachusetts	2.71%	165
4	Maryland	2.69%	163
5	New Jersey	2.42%	147
6	Delaware	2.20%	133
7	Connecticut	2.04%	124
8	Minnesota	2.03%	123
9	California	2.00%	121
10	Illinois	1.98%	120
11	District of Columbia	1.97%	120
12	Georgia	1.77%	108
13	Nebraska	1.75%	106
14	Utah	1.71%	104
15	New York	1.70%	103
16	Arizona	1.70%	103
17	Texas	1.70%	103
18	Oregon	1.61%	98
19	Washington	1.60%	97
20	Vermont	1.58%	96
21	North Carolina	1.52%	92
22	Pennsylvania	1.47%	89
23	Michigan	1.46%	89
24	Missouri	1.45%	88
25	North Dakota	1.45%	88
26	New Hampshire	1.40%	85
27	Florida	1.40%	85
28	Ohio	1.32%	80
29	Wisconsin	1.26%	77
30	Rhode Island	1.24%	75
31	Oklahoma	1.21%	74
32	Iowa	1.16%	71
33	South Dakota	1.16%	70
34	Kansas	1.15%	70
35	Alaska	1.10%	67
36	Idaho	1.10%	67
37	Alabama	1.08%	66
38	New Mexico	1.08%	66
39	Tennessee	1.06%	64
40	Indiana	1.00%	61
41	Kentucky	0.97%	59
42	Hawaii	0.94%	57
43	Maine	0.86%	52
44	South Carolina	0.84%	51
45	Montana	0.74%	45
46	Louisiana	0.67%	40
47	Nevada	0.66%	40
48	Arkansas	0.63%	38
49	Guam	0.61%	37
50	Puerto Rico	0.60%	37
51	West Virginia	0.60%	36
52	Mississippi	0.58%	35
53	Wyoming	0.53%	32
54	Virgin Islands	0.15%	9
U.S. Core IT Worker Intensity		1.65%	100

SOURCE: Office of Technology Policy, U.S. Department of Commerce

Table 2. 1998 State Employment of Computer Engineers

State Rankings by Number Employed			State Rankings by Annual Average Wages			State Rankings by Intensity			
Rank	State	Size of Work Force	Rank	State	Annual Average Wages	Rank	State	Intensity	State Index US=100
1	California	54,090	1	Massachusetts	\$ 66,680	1	Massachusetts	0.73%	304
2	Texas	23,070	2	District of Columbia	\$ 66,040	2	Colorado	0.61%	254
3	Massachusetts	22,820	3	Oregon	\$ 65,330	3	Virginia	0.49%	204
4	Virginia	15,890	4	Colorado	\$ 64,460	4	Maryland	0.41%	171
5	Illinois	15,470	5	California	\$ 64,020	5	California	0.39%	163
6	New York	13,710	6	Arizona	\$ 63,950	6	District of Columbia	0.38%	159
7	New Jersey	12,580	7	Rhode Island	\$ 62,560	7	New Jersey	0.34%	141
8	Colorado	12,290	8	Connecticut	\$ 62,230	8	Connecticut	0.30%	124
9	Pennsylvania	11,860	9	Delaware	\$ 62,120	9	Washington	0.29%	120
10	Florida	11,030	10	New Jersey	\$ 60,950	10	Minnesota	0.28%	118
11	North Carolina	9,650	11	Washington	\$ 60,540	11	Utah	0.27%	113
12	Maryland	9,420	12	New York	\$ 59,730	12	Illinois	0.27%	111
13	Georgia	8,850	13	North Dakota	\$ 59,590	13	Texas	0.26%	108
14	Michigan	8,250	14	Florida	\$ 59,250	14	North Carolina	0.26%	108
15	Ohio	7,810	15	North Carolina	\$ 59,230	15	Oregon	0.25%	105
16	Minnesota	7,090	16	Nevada	\$ 59,020	16	Georgia	0.24%	100
17	Washington	6,870	17	Pennsylvania	\$ 58,860	17	Arizona	0.23%	97
18	Connecticut	4,850	18	Maryland	\$ 58,460	18	Pennsylvania	0.22%	92
19	Arizona	4,800	19	Alaska	\$ 58,350	19	Idaho	0.21%	85
20	Indiana	3,970	20	Minnesota	\$ 58,310	20	Rhode Island	0.20%	83
21	Oregon	3,830	21	Texas	\$ 58,210	21	Vermont	0.19%	80
22	Missouri	2,980	22	Virginia	\$ 58,070	22	Michigan	0.19%	78
23	Alabama	2,970	23	Georgia	\$ 57,960	23	New York	0.17%	70
24	Utah	2,650	24	Alabama	\$ 57,700	24	Florida	0.17%	70
25	Wisconsin	2,510	25	New Mexico	\$ 57,330	25	Alabama	0.16%	67
26	Iowa	2,200	26	Utah	\$ 57,180	26	Iowa	0.16%	65
27	Tennessee	1,880	27	Michigan	\$ 56,070	27	Nebraska	0.16%	65
28	Kentucky	1,850	28	Montana	\$ 55,680	28	New Mexico	0.14%	60
29	District of Columbia	1,540	29	Hawaii	\$ 55,590	29	Ohio	0.14%	60
30	Nebraska	1,320	30	Wisconsin	\$ 55,530	30	Indiana	0.14%	57
31	Oklahoma	1,310	31	Missouri	\$ 55,010	31	Missouri	0.12%	48
32	Idaho	1,050	32	Nebraska	\$ 54,940	32	Kentucky	0.11%	46
33	New Mexico	960	33	Vermont	\$ 54,240	33	Wisconsin	0.10%	40
34	Kansas	930	34	Maine	\$ 53,470	34	Oklahoma	0.10%	40
35	Rhode Island	870	35	Ohio	\$ 53,200	35	Delaware	0.09%	39
36	South Carolina	870	36	West Virginia	\$ 52,850	36	Kansas	0.07%	30
37	Mississippi	710	37	Idaho	\$ 52,440	37	Tennessee	0.07%	30
38	Louisiana	590	38	South Carolina	\$ 52,320	38	North Dakota	0.07%	28
39	Arkansas	580	39	Tennessee	\$ 52,160	39	Mississippi	0.06%	27
40	Vermont	510	40	Illinois	\$ 52,110	40	Hawaii	0.06%	26
41	Delaware	330	41	Indiana	\$ 51,910	41	South Dakota	0.05%	22
42	Hawaii	300	42	Iowa	\$ 50,780	42	Arkansas	0.05%	22
43	Maine	260	43	Oklahoma	\$ 50,570	43	South Carolina	0.05%	21
44	West Virginia	240	44	Kansas	\$ 50,140	44	Maine	0.05%	20
45	Nevada	230	45	Mississippi	\$ 50,020	45	Alaska	0.04%	17
46	North Dakota	200	46	Wyoming	\$ 48,270	46	West Virginia	0.04%	15
47	South Dakota	180	47	Kentucky	\$ 48,080	47	Louisiana	0.03%	13
48	Puerto Rico	140	48	Louisiana	\$ 46,490	48	Montana	0.03%	12
49	Alaska	100	49	South Dakota	\$ 45,560	49	Nevada	0.03%	10
50	Montana	100	50	Arkansas	\$ 41,340	50	Puerto Rico	0.02%	6
51	Wyoming	30	51	Puerto Rico	\$ 38,170	51	Wyoming	0.01%	6
52	New Hampshire	(*)	52	New Hampshire	(*)	52	New Hampshire	(*)	(*)
53	Guam	(*)	53	Guam	(*)	53	Guam	(*)	(*)
54	Virgin Islands	(*)	54	Virgin Islands	(*)	54	Virgin Islands	(*)	(*)

SOURCE: Office of Technology Policy, U.S. Department of Commerce

(*) data not available

Table 3. 1998 State Employment of Computer Programmers

State Rankings by Number Employed			State Rankings by Annual Average Wages			State Rankings by Intensity			
Rank	State	Size of Work Force	Rank	State	Annual Average Wages	Rank	State	Intensity	State Index US=100
1	California	75,560	1	New Jersey	\$ 61,530	1	Virginia	0.83%	180
2	New York	45,500	2	California	\$ 60,720	2	Maryland	0.72%	156
3	Texas	38,520	3	Massachusetts	\$ 59,890	3	New Jersey	0.72%	155
4	Illinois	37,330	4	Connecticut	\$ 59,060	4	Colorado	0.71%	153
5	Virginia	26,960	5	New York	\$ 57,660	5	Illinois	0.64%	138
6	New Jersey	26,770	6	Maryland	\$ 57,120	6	District of Columbia	0.63%	137
7	Florida	24,780	7	Georgia	\$ 55,630	7	Massachusetts	0.62%	135
8	Ohio	21,820	8	New Hampshire	\$ 54,550	8	Nebraska	0.59%	127
9	Massachusetts	19,490	9	Arizona	\$ 54,430	9	New York	0.56%	121
10	Pennsylvania	19350	10	North Carolina	\$ 54,070	10	California	0.55%	118
11	Michigan	18,780	11	Colorado	\$ 53,970	11	Washington	0.55%	118
12	Georgia	17,240	12	Delaware	\$ 53,680	12	Connecticut	0.54%	117
13	Maryland	16,550	13	Texas	\$ 53,030	13	Missouri	0.52%	111
14	North Carolina	16,070	14	Washington	\$ 52,970	14	Arizona	0.50%	108
15	Colorado	14,300	15	Alaska	\$ 51,860	15	Delaware	0.49%	106
16	Missouri	13,370	16	Michigan	\$ 51,740	16	New Hampshire	0.49%	106
17	Washington	12,990	17	Oregon	\$ 51,610	17	Georgia	0.47%	101
18	Minnesota	11,750	18	Pennsylvania	\$ 51,380	18	Minnesota	0.47%	101
19	Arizona	10,320	19	Tennessee	\$ 51,210	19	Vermont	0.47%	100
20	Wisconsin	10040	20	Illinois	\$ 51,010	20	Texas	0.44%	94
21	Connecticut	8,840	21	Rhode Island	\$ 50,140	21	North Carolina	0.43%	93
22	Tennessee	8,680	22	District of Columbia	\$ 50,100	22	Michigan	0.43%	92
23	Indiana	7,090	23	Missouri	\$ 49,920	23	Rhode Island	0.43%	92
24	Alabama	5,550	24	Oklahoma	\$ 49,610	24	Ohio	0.40%	87
25	Oregon	5,450	25	Nevada	\$ 49,270	25	Alaska	0.40%	86
26	Oklahoma	5,160	26	Virginia	\$ 49,130	26	Utah	0.40%	86
27	Nebraska	4,940	27	Minnesota	\$ 48,840	27	Wisconsin	0.38%	82
28	Iowa	4,850	28	Ohio	\$ 48,420	28	Florida	0.38%	81
29	South Carolina	4,690	29	Florida	\$ 47,970	29	Oklahoma	0.38%	81
30	Kansas	4,530	30	Utah	\$ 47,530	30	Oregon	0.36%	78
31	Louisiana	4,070	31	Kansas	\$ 47,300	31	Pennsylvania	0.36%	77
32	Utah	3,900	32	Wisconsin	\$ 47,130	32	Kansas	0.35%	76
33	Kentucky	3300	33	South Carolina	\$ 46,860	33	Iowa	0.35%	75
34	New Hampshire	2,760	34	Vermont	\$ 46,200	34	Tennessee	0.34%	72
35	District of Columbia	2,560	35	Alabama	\$ 46,180	35	Alabama	0.30%	65
36	Mississippi	2,230	36	Idaho	\$ 46,180	36	South Dakota	0.27%	59
37	Puerto Rico	2160	37	Nebraska	\$ 46,030	37	South Carolina	0.27%	59
38	Nevada	1,980	38	New Mexico	\$ 45,030	38	Indiana	0.25%	53
39	Arkansas	1,860	39	Indiana	\$ 44,910	39	Puerto Rico	0.24%	52
40	Rhode Island	1,860	40	Arkansas	\$ 44,350	40	Hawaii	0.23%	50
41	Delaware	1,730	41	Louisiana	\$ 43,730	41	Louisiana	0.22%	48
42	New Mexico	1,330	42	Maine	\$ 43,590	42	Wyoming	0.22%	47
43	Vermont	1,240	43	Iowa	\$ 42,960	43	Nevada	0.22%	47
44	Hawaii	1,120	44	Hawaii	\$ 42,710	44	Mississippi	0.20%	44
45	Maine	1,060	45	Guam	\$ 41,610	45	New Mexico	0.20%	43
46	Alaska	1,000	46	Kentucky	\$ 41,220	46	Guam	0.20%	42
47	West Virginia	970	47	Montana	\$ 39,740	47	Montana	0.20%	42
48	Idaho	960	48	West Virginia	\$ 39,180	48	Kentucky	0.20%	42
49	South Dakota	920	49	Mississippi	\$ 39,040	49	Maine	0.19%	41
50	Montana	700	50	North Dakota	\$ 39,040	50	Idaho	0.19%	40
51	North Dakota	550	51	South Dakota	\$ 37,330	51	North Dakota	0.19%	40
52	Wyoming	470	52	Wyoming	\$ 34,670	52	Arkansas	0.17%	37
53	Guam	100	53	Puerto Rico	\$ 29,120	53	West Virginia	0.15%	32
54	Virgin Islands	(*)	54	Virgin Islands	(*)	54	Virgin Islands	(*)	(*)

SOURCE: Office of Technology Policy, U.S. Department of Commerce

(*) data not available

Table 4. 1998 State Employment of Systems Analysts

Ranking by Number Employed			Ranking by Annual Average Wages			Ranking by Intensity			
Rank	State	Number Employed	Rank	State	Annual Average Wages	Rank	State	Intensity	State Index US=100
1	California	59,720	1	New Jersey	61,880	1	Virginia	0.93%	218
2	Texas	40,920	2	Colorado	60,750	2	Maryland	0.82%	194
3	New York	34,880	3	Virginia	59,350	3	Delaware	0.72%	170
4	Illinois	31,670	4	New York	58,990	4	New Jersey	0.70%	166
5	Virginia	29,890	5	Connecticut	58,860	5	Minnesota	0.64%	150
6	New Jersey	26,110	6	Minnesota	57,860	6	Connecticut	0.63%	149
7	Florida	25,320	7	Massachusetts	57,020	7	Colorado	0.59%	139
8	Pennsylvania	21,980	8	California	56,280	8	Massachusetts	0.57%	134
9	Michigan	21,010	9	Maryland	55,950	9	Illinois	0.54%	128
10	Ohio	18,890	10	Missouri	55,400	10	Georgia	0.49%	116
11	Maryland	18,820	11	Georgia	54,100	11	Nebraska	0.48%	114
12	Georgia	18,110	12	Alaska	53,950	12	Michigan	0.48%	113
13	Massachusetts	17,730	13	Oregon	53,950	13	Texas	0.46%	109
14	Minnesota	15,870	14	Delaware	53,720	14	California	0.43%	102
15	North Carolina	13,340	15	Rhode Island	53,260	15	New York	0.43%	102
16	Colorado	11,880	16	New Hampshire	52,640	16	New Hampshire	0.42%	98
17	Connecticut	10,280	17	Illinois	52,450	17	Arizona	0.41%	98
18	Wisconsin	9,610	18	Texas	51,710	18	Pennsylvania	0.41%	96
19	Missouri	9,140	19	Maine	51,570	19	Florida	0.38%	91
20	Arizona	8,500	20	Kansas	51,540	20	Wisconsin	0.37%	86
21	Indiana	8,460	21	North Carolina	51,450	21	North Carolina	0.36%	85
22	Tennessee	7,660	22	Pennsylvania	51,420	22	Missouri	0.35%	83
23	Alabama	5,890	23	Arizona	51,370	23	Ohio	0.35%	82
24	Kentucky	5,680	24	South Dakota	50,870	24	New Mexico	0.34%	80
25	Oregon	4,790	25	Indiana	50,830	25	Kentucky	0.34%	79
26	South Carolina	4,690	26	New Mexico	50,580	26	Hawaii	0.34%	79
27	Oklahoma	4,090	27	Florida	50,440	27	Utah	0.33%	79
28	Nebraska	4,070	28	Vermont	50,230	28	Alabama	0.32%	76
29	Louisiana	3,810	29	Nevada	50,190	29	Oregon	0.32%	75
30	Iowa	3,590	30	Oklahoma	50,100	30	Oklahoma	0.30%	70
31	Kansas	3,510	31	Ohio	49,930	31	Tennessee	0.30%	70
32	Utah	3,250	32	Alabama	49,860	32	Indiana	0.29%	69
33	Delaware	2,530	33	Kentucky	49,720	33	Alaska	0.28%	67
34	New Hampshire	2,340	34	Wisconsin	49,550	34	Vermont	0.27%	65
35	New Mexico	2,270	35	Nebraska	48,940	35	Kansas	0.27%	65
36	Arkansas	1,750	36	Michigan	48,750	36	South Carolina	0.27%	64
37	Mississippi	1,710	37	Idaho	48,590	37	Rhode Island	0.27%	64
38	Hawaii	1,620	38	Utah	48,250	38	Iowa	0.26%	60
39	Puerto Rico	1,470	39	Hawaii	47,880	39	Guam	0.26%	60
40	West Virginia	1,460	40	West Virginia	47,760	40	Maine	0.25%	59
41	Maine	1,380	41	Iowa	47,340	41	Idaho	0.25%	59
42	Idaho	1,270	42	South Carolina	47,030	42	West Virginia	0.22%	52
43	Nevada	1,190	43	Tennessee	46,660	43	Louisiana	0.21%	49
44	Rhode Island	1,180	44	Louisiana	45,920	44	South Dakota	0.20%	48
45	Vermont	730	45	Mississippi	44,390	45	Montana	0.20%	46
46	Alaska	710	46	Montana	40,740	46	Puerto Rico	0.16%	38
47	Montana	700	47	Guam	40,730	47	Arkansas	0.16%	38
48	South Dakota	680	48	Wyoming	40,630	48	North Dakota	0.16%	37
49	North Dakota	470	49	Arkansas	39,360	49	Mississippi	0.16%	37
50	Wyoming	210	50	North Dakota	35,750	50	Nevada	0.13%	31
51	Guam	130	51	Puerto Rico	34,630	51	Wyoming	0.10%	23
52	District of Columbia	(*)	52	District of Columbia	(*)	52	District of Columbia	(*)	(*)
53	Washington	(*)	53	Washington	(*)	53	Washington	(*)	(*)
54	Virgin Islands	(*)	54	Virgin Islands	(*)	54	Virgin Islands	(*)	(*)

SOURCE: Office of Technology Policy, U.S. Department of Commerce

(*) data not available

Table 5. 1998 State Employment of All Other Computer Scientists

Ranking by Number Employed			Ranking by Annual Average Wages			Ranking by Intensity			
Rank	State	Number Employed	Rank	State	Annual Average Wages	Rank	State	Intensity	State Index US=100
1	California	15,740	1	Maryland	\$ 60,930	1	Colorado	0.21%	270
2	New York	6,710	2	Delaware	\$ 58,700	2	Minnesota	0.17%	210
3	Illinois	6,420	3	Pennsylvania	\$ 57,300	3	Delaware	0.16%	198
4	Florida	5,740	4	New Jersey	\$ 57,210	4	Maryland	0.15%	192
5	Texas	4,910	5	Connecticut	\$ 55,990	5	Oregon	0.15%	184
6	Georgia	4,320	6	Colorado	\$ 55,600	6	District of Columbia	0.12%	150
7	Colorado	4,300	7	California	\$ 54,590	7	Georgia	0.12%	149
8	Minnesota	4,160	8	Virginia	\$ 54,010	8	California	0.11%	144
9	Maryland	3,480	9	New York	\$ 53,620	9	Illinois	0.11%	139
10	Pennsylvania	3,350	10	District of Columbia	\$ 52,800	10	Massachusetts	0.10%	132
11	Massachusetts	3,270	11	Alaska	\$ 51,530	11	Idaho	0.10%	131
12	Virginia	3,030	12	Massachusetts	\$ 51,110	12	Utah	0.10%	123
13	New Jersey	2,990	13	North Carolina	\$ 50,590	13	New Hampshire	0.10%	121
14	Michigan	2,960	14	Hawaii	\$ 50,530	14	Virginia	0.09%	118
15	Ohio	2,960	15	Minnesota	\$ 50,500	15	Washington	0.09%	113
16	Oregon	2,210	16	Washington	\$ 49,250	16	Florida	0.09%	110
17	Washington	2,130	17	Florida	\$ 48,870	17	New York	0.08%	105
18	North Carolina	1,880	18	Alabama	\$ 47,910	18	New Jersey	0.08%	101
19	Missouri	1,760	19	South Carolina	\$ 47,710	19	Connecticut	0.08%	99
20	Arizona	1,420	20	Ohio	\$ 47,600	20	Oklahoma	0.08%	95
21	Tennessee	1,390	21	Utah	\$ 47,450	21	New Mexico	0.07%	89
22	Connecticut	1,280	22	Oregon	\$ 47,340	22	Arizona	0.07%	87
23	Indiana	1,220	23	Mississippi	\$ 47,030	23	Missouri	0.07%	86
24	Wisconsin	1,200	24	Missouri	\$ 46,990	24	Michigan	0.07%	85
25	Oklahoma	1,030	25	Texas	\$ 46,730	25	Pennsylvania	0.06%	78
26	Utah	950	26	Kansas	\$ 46,490	26	Iowa	0.06%	76
27	Iowa	840	27	Arizona	\$ 46,170	27	Texas	0.06%	70
28	Alabama	670	28	Illinois	\$ 46,030	28	Ohio	0.05%	69
29	Kentucky	560	29	West Virginia	\$ 45,990	29	Tennessee	0.05%	68
30	Delaware	550	30	Nebraska	\$ 45,710	30	North Carolina	0.05%	64
31	New Hampshire	540	31	Vermont	\$ 44,610	31	Nebraska	0.05%	63
32	Idaho	530	32	Michigan	\$ 44,090	32	Wisconsin	0.05%	58
33	District of Columbia	480	33	Iowa	\$ 43,470	33	Indiana	0.04%	54
34	Kansas	480	34	Oklahoma	\$ 43,270	34	Kansas	0.04%	47
35	New Mexico	470	35	Louisiana	\$ 43,020	35	Alabama	0.04%	46
36	Nebraska	420	36	Indiana	\$ 42,950	36	Maine	0.03%	43
37	Louisiana	410	37	New Mexico	\$ 42,760	37	Kentucky	0.03%	42
38	South Carolina	350	38	Georgia	\$ 42,340	38	Alaska	0.03%	40
39	Arkansas	230	39	Maine	\$ 41,920	39	Hawaii	0.03%	37
40	Maine	190	40	New Hampshire	\$ 41,910	40	Wyoming	0.03%	35
41	Mississippi	180	41	Nevada	\$ 41,720	41	West Virginia	0.03%	34
42	West Virginia	180	42	Wisconsin	\$ 41,140	42	Louisiana	0.02%	28
43	Nevada	160	43	Tennessee	\$ 40,960	43	Arkansas	0.02%	27
44	Hawaii	140	44	Idaho	\$ 39,710	44	South Carolina	0.02%	26
45	Puerto Rico	90	45	Kentucky	\$ 38,940	45	Nevada	0.02%	22
46	Alaska	80	46	Arkansas	\$ 33,450	46	Mississippi	0.02%	21
47	Wyoming	60	47	Montana	\$ 32,860	47	Montana	0.01%	18
48	Montana	50	48	Puerto Rico	\$ 31,020	48	Vermont	0.01%	14
49	Vermont	30	49	Wyoming	\$ 29,700	49	Puerto Rico	0.01%	13
50	North Dakota	(*)	50	North Dakota	(*)	50	North Dakota	(*)	(*)
51	Rhode Island	(*)	51	Rhode Island	(*)	51	Rhode Island	(*)	(*)
52	South Dakota	(*)	52	South Dakota	(*)	52	South Dakota	(*)	(*)
53	Guam	(*)	53	Guam	(*)	53	Guam	(*)	(*)
54	Virgin Islands	(*)	54	Virgin Islands	(*)	54	Virgin Islands	(*)	(*)

SOURCE: Office of Technology Policy, U.S. Department of Commerce

(*) data not available

Table 6. 1998 State Employment of Database Administrators

Ranking by Number Employed			Ranking by Annual Average Wages			Ranking by Intensity			
Rank	State	Number Employed	Rank	State	Annual Average Wages	Rank	State	Intensity	State Index US=100
1	California	12,370	1	New York	\$ 56,110	1	District of Columbia	0.19%	270
2	Texas	7,270	2	New Jersey	\$ 55,780	2	Colorado	0.12%	166
3	New York	6,570	3	California	\$ 55,100	3	Virginia	0.11%	162
4	Illinois	4,610	4	Connecticut	\$ 53,160	4	Rhode Island	0.09%	133
5	Ohio	4,230	5	Arizona	\$ 52,850	5	New Jersey	0.09%	133
6	Pennsylvania	3,790	6	Massachusetts	\$ 52,420	6	Massachusetts	0.09%	131
7	Florida	3,720	7	Rhode Island	\$ 52,290	7	Vermont	0.09%	128
8	Virginia	3,690	8	Alaska	\$ 52,260	8	California	0.09%	127
9	New Jersey	3,480	9	Colorado	\$ 52,180	9	Connecticut	0.09%	126
10	Georgia	2,960	10	Missouri	\$ 52,100	10	Maryland	0.09%	124
11	Massachusetts	2,890	11	Illinois	\$ 51,600	11	Texas	0.08%	116
12	North Carolina	2,480	12	Delaware	\$ 51,350	12	New York	0.08%	115
13	Colorado	2,360	13	Hawaii	\$ 51,340	13	Georgia	0.08%	114
14	Michigan	2,040	14	Virginia	\$ 51,250	14	Arizona	0.08%	114
15	Maryland	2,010	15	New Hampshire	\$ 51,140	15	Delaware	0.08%	113
16	Indiana	1,760	16	Maryland	\$ 50,720	16	Illinois	0.08%	112
17	Missouri	1,710	17	Minnesota	\$ 50,450	17	Ohio	0.08%	110
18	Arizona	1,650	18	Arkansas	\$ 49,830	18	Oklahoma	0.08%	106
19	Wisconsin	1,590	19	Pennsylvania	\$ 49,820	19	Arkansas	0.07%	103
20	Connecticut	1,450	20	Oregon	\$ 49,810	20	Pennsylvania	0.07%	100
21	Minnesota	1,430	21	Utah	\$ 49,560	21	Kansas	0.07%	99
22	Tennessee	1,180	22	Idaho	\$ 49,550	22	Nebraska	0.07%	99
23	Oklahoma	1,030	23	Texas	\$ 49,310	23	North Carolina	0.07%	95
24	Kansas	900	24	North Carolina	\$ 49,000	24	New Mexico	0.07%	94
25	Arkansas	790	25	Tennessee	\$ 47,950	25	Missouri	0.07%	93
26	District of Columbia	770	26	Kentucky	\$ 47,850	26	Hawaii	0.06%	91
27	Iowa	770	27	District of Columbia	\$ 47,810	27	Utah	0.06%	89
28	Alabama	760	28	Ohio	\$ 47,640	28	Indiana	0.06%	87
29	Oregon	660	29	Michigan	\$ 47,120	29	Wisconsin	0.06%	86
30	South Carolina	660	30	Florida	\$ 46,890	30	Minnesota	0.06%	81
31	Utah	610	31	Nebraska	\$ 46,630	31	Florida	0.06%	80
32	Nebraska	590	32	Iowa	\$ 46,460	32	Iowa	0.06%	78
33	Kentucky	580	33	Alabama	\$ 46,230	33	New Hampshire	0.05%	75
34	Louisiana	510	34	Wisconsin	\$ 45,720	34	Alaska	0.05%	74
35	New Mexico	440	35	Vermont	\$ 45,630	35	Michigan	0.05%	66
36	Rhode Island	410	36	Montana	\$ 45,420	36	Tennessee	0.05%	64
37	Mississippi	330	37	Nevada	\$ 45,240	37	Oregon	0.04%	62
38	Hawaii	310	38	West Virginia	\$ 45,110	38	Alabama	0.04%	59
39	New Hampshire	300	39	New Mexico	\$ 43,570	39	Maine	0.04%	56
40	Puerto Rico	290	40	Kansas	\$ 43,560	40	South Carolina	0.04%	54
41	Delaware	280	41	Indiana	\$ 43,430	41	Kentucky	0.03%	49
42	Nevada	250	42	South Carolina	\$ 43,230	42	North Dakota	0.03%	48
43	Vermont	240	43	Louisiana	\$ 43,120	43	Idaho	0.03%	47
44	Maine	220	44	North Dakota	\$ 42,820	44	Puerto Rico	0.03%	46
45	Idaho	170	45	South Dakota	\$ 42,810	45	Mississippi	0.03%	43
46	West Virginia	170	46	Georgia	\$ 42,590	46	Montana	0.03%	40
47	Alaska	130	47	Wyoming	\$ 42,120	47	Louisiana	0.03%	40
48	Montana	100	48	Oklahoma	\$ 41,250	48	Nevada	0.03%	39
49	North Dakota	100	49	Maine	\$ 40,730	49	West Virginia	0.03%	37
50	South Dakota	70	50	Mississippi	\$ 40,510	50	South Dakota	0.02%	30
51	Wyoming	40	51	Puerto Rico	\$ 40,100	51	Wyoming	0.02%	27
52	Washington	(*)	52	Washington	(*)	52	Washington	0.00%	-
53	Guam	(*)	53	Guam	(*)	53	Guam	0.00%	-
54	Virgin Islands	(*)	54	Virgin Islands	(*)	54	Virgin Islands	0.00%	-

SOURCE: Office of Technology Policy, U.S. Department of Commerce

(*) data not available

Table 7. 1998 State Employment of Computer Support Specialists

Ranking by Number Employed			Ranking by Annual Average Wages			Ranking by Intensity			
Rank	State	Number Employed	Rank	State	Annual Average Wages	Rank	State	Intensity	State Index US=100
1	California	57,940	1	New Jersey	\$ 47,100	1	North Dakota	1.00%	272
2	Texas	35,460	2	Connecticut	\$ 46,990	2	Colorado	0.70%	189
3	New York	30,290	3	New York	\$ 46,970	3	Washington	0.68%	183
4	Florida	21,380	4	California	\$ 46,830	4	Delaware	0.65%	176
5	Illinois	19,300	5	Massachusetts	\$ 46,370	5	District of Columbia	0.65%	176
6	Pennsylvania	18,870	6	Delaware	\$ 44,250	6	South Dakota	0.61%	165
7	Massachusetts	18,430	7	Illinois	\$ 43,420	7	Massachusetts	0.59%	160
8	New Jersey	18,080	8	Alaska	\$ 42,330	8	Vermont	0.55%	149
9	Washington	16,090	9	Maryland	\$ 41,560	9	Utah	0.54%	147
10	Ohio	15,960	10	Michigan	\$ 41,480	10	Maryland	0.49%	134
11	Virginia	15,170	11	District of Columbia	\$ 41,170	11	Oregon	0.49%	134
12	Colorado	13,970	12	Texas	\$ 40,840	12	New Jersey	0.49%	132
13	Georgia	13,450	13	Hawaii	\$ 40,310	13	Virginia	0.47%	127
14	North Carolina	13,050	14	Minnesota	\$ 40,250	14	Minnesota	0.42%	114
15	Maryland	11,280	15	Rhode Island	\$ 40,230	15	California	0.42%	114
16	Michigan	11,130	16	New Hampshire	\$ 39,830	16	Nebraska	0.40%	110
17	Minnesota	10,500	17	North Carolina	\$ 39,320	17	Texas	0.40%	109
18	Missouri	8,600	18	Missouri	\$ 38,830	18	Arizona	0.40%	108
19	Wisconsin	8,230	19	Arizona	\$ 38,730	19	Connecticut	0.39%	107
20	Arizona	8,160	20	Pennsylvania	\$ 38,600	20	New York	0.37%	102
21	Oregon	7,450	21	Kansas	\$ 38,430	21	Georgia	0.37%	100
22	Tennessee	6,660	22	Washington	\$ 37,920	22	North Carolina	0.35%	96
23	Connecticut	6,400	23	Virginia	\$ 37,830	23	Pennsylvania	0.35%	95
24	Indiana	6,150	24	Georgia	\$ 37,510	24	New Hampshire	0.35%	94
25	Utah	5,260	25	Ohio	\$ 37,480	25	Kansas	0.34%	93
26	Kansas	4,390	26	Wisconsin	\$ 37,440	26	Illinois	0.33%	90
27	Kentucky	4,390	27	Colorado	\$ 37,350	27	Missouri	0.33%	90
28	Alabama	4,050	28	Florida	\$ 37,130	28	Florida	0.32%	88
29	Iowa	4,030	29	Vermont	\$ 37,020	29	Idaho	0.32%	87
30	Oklahoma	3,980	30	Tennessee	\$ 36,940	30	Wisconsin	0.31%	85
31	Nebraska	3,390	31	Indiana	\$ 36,200	31	Maine	0.30%	81
32	South Carolina	3,280	32	Nevada	\$ 35,870	32	Ohio	0.29%	80
33	North Dakota	2,960	33	Alabama	\$ 35,670	33	Alaska	0.29%	79
34	Louisiana	2,730	34	Oregon	\$ 35,490	34	Oklahoma	0.29%	79
35	District of Columbia	2,610	35	New Mexico	\$ 35,400	35	Iowa	0.29%	78
36	Delaware	2,280	36	Iowa	\$ 34,870	36	Montana	0.27%	74
37	Nevada	2,250	37	Kentucky	\$ 34,810	37	New Mexico	0.26%	71
38	South Dakota	2,040	38	South Carolina	\$ 34,640	38	Kentucky	0.26%	71
39	New Hampshire	1,950	39	Virgin Islands	\$ 33,860	39	Tennessee	0.26%	70
40	New Mexico	1,740	40	Louisiana	\$ 33,700	40	Michigan	0.25%	69
41	Arkansas	1,700	41	Mississippi	\$ 33,050	41	Rhode Island	0.25%	68
42	Maine	1,660	42	Utah	\$ 32,870	42	Nevada	0.25%	67
43	Idaho	1,630	43	Nebraska	\$ 32,660	43	Alabama	0.22%	60
44	Vermont	1,460	44	West Virginia	\$ 32,510	44	Hawaii	0.22%	58
45	Puerto Rico	1,290	45	Idaho	\$ 32,270	45	Indiana	0.21%	58
46	Mississippi	1,180	46	Arkansas	\$ 31,850	46	South Carolina	0.19%	52
47	Rhode Island	1,100	47	Montana	\$ 31,180	47	Guam	0.16%	43
48	Hawaii	1,040	48	Wyoming	\$ 31,170	48	Arkansas	0.16%	42
49	Montana	970	49	Maine	\$ 30,570	49	Virgin Islands	0.15%	41
50	West Virginia	920	50	Guam	\$ 29,970	50	Louisiana	0.15%	41
51	Alaska	730	51	Puerto Rico	\$ 29,350	51	Wyoming	0.15%	39
52	Wyoming	310	52	Oklahoma	\$ 27,920	52	Puerto Rico	0.14%	39
53	Guam	80	53	South Dakota	\$ 25,350	53	West Virginia	0.14%	38
54	Virgin Islands	40	54	North Dakota	\$ 23,570	54	Mississippi	0.11%	29

SOURCE: Office of Technology Policy, U.S. Department of Commerce

(*) data not available

Table 8. State Ordinal Rankings of Core IT Work Force Occupations

All Core IT Occupations			Computer Engineers			Computer Programmers			Systems Analysts		
Size of Work Force	Intensity		Size of Work Force	Annual Average Wages	Intensity	Size of Work Force	Annual Average Wages	Intensity	Size of Work Force	Annual Average Wages	Intensity
25	37	Alabama	23	24	25	24	35	35	23	32	28
50	35	Alaska	49	19	45	46	15	25	46	12	33
19	16	Arizona	19	6	17	19	9	14	20	23	17
38	48	Arkansas	39	50	42	39	40	52	36	49	47
1	9	California	1	5	5	1	2	10	1	8	14
14	1	Colorado	8	4	2	15	11	4	16	2	7
21	7	Connecticut	18	8	8	21	4	12	17	5	6
36	6	Delaware	41	9	35	41	12	15	33	14	3
34	11	District of Columbia	29	2	6	35	22	6	52	52	52
6	27	Florida	10	14	24	7	29	28	7	27	19
11	12	Georgia	13	23	16	12	7	17	12	11	10
53	49	Guam	53	53	53	53	45	46	51	47	39
45	42	Hawaii	42	29	40	44	44	40	38	39	26
41	36	Idaho	32	37	19	48	36	50	42	37	41
4	10	Illinois	5	40	12	4	20	5	4	17	9
22	40	Indiana	20	41	30	23	39	38	21	25	32
29	32	Iowa	26	42	26	28	43	33	30	41	38
30	34	Kansas	34	44	36	30	31	32	31	20	35
28	41	Kentucky	28	47	32	33	46	48	24	33	25
33	46	Louisiana	38	48	47	31	41	41	29	44	43
44	43	Maine	43	34	44	45	42	49	41	19	40
13	4	Maryland	12	18	4	13	6	2	11	9	2
8	3	Massachusetts	3	1	1	9	3	7	13	7	8
12	23	Michigan	14	27	22	11	16	22	9	36	12
16	8	Minnesota	16	20	10	18	27	18	14	6	5
39	52	Mississippi	37	45	39	36	49	44	37	45	49
18	24	Missouri	22	31	31	16	23	13	19	10	22
51	45	Montana	50	28	48	50	47	47	47	46	45
31	13	Nebraska	30	32	27	27	37	8	28	35	11
40	47	Nevada	45	16	49	38	25	43	43	29	50
35	26	New Hampshire	52	52	52	34	8	16	34	16	16
7	5	New Jersey	7	10	7	6	1	3	6	1	4
37	38	New Mexico	33	25	28	42	38	45	35	26	24
3	15	New York	6	12	23	2	5	9	3	4	15
15	21	North Carolina	11	15	14	14	10	21	15	21	21
46	25	North Dakota	46	13	38	51	50	51	49	50	48
10	28	Ohio	15	35	29	8	28	24	10	31	23
27	31	Oklahoma	31	43	34	26	24	29	27	30	30
24	18	Oregon	21	3	15	25	17	30	25	13	29
9	22	Pennsylvania	9	17	18	10	18	31	8	22	18
42	50	Puerto Rico	48	51	50	37	53	39	39	51	46
43	30	Rhode Island	35	7	20	40	21	23	44	15	37
32	44	South Carolina	36	38	43	29	33	37	26	42	36
49	33	South Dakota	47	49	41	49	51	36	48	24	44
23	39	Tennessee	27	39	37	22	19	34	22	43	31
2	17	Texas	2	21	13	3	13	20	2	18	13
26	14	Utah	24	26	11	32	30	26	32	38	27
47	20	Vermont	40	33	21	43	34	19	45	28	34
54	54	Virgin Islands	54	54	54	54	54	54	54	54	54
5	2	Virginia	4	22	3	5	26	1	5	3	1
17	19	Washington	17	11	9	17	14	11	53	53	53
48	51	West Virginia	44	36	46	47	48	53	40	40	42
20	29	Wisconsin	25	30	33	20	32	27	18	34	20
52	53	Wyoming	51	46	51	52	52	42	50	48	51

SOURCE: Office of Technology Policy, U.S. Department of Commerce

Table 8. Ordinal Rankings (*continued*)

	All Other Computer Scientists			Database Administrators			Computer Support Specialists		
	Size of Work Force	Annual Average Wages	Intensity	Size of Work Force	Annual Average Wages	Intensity	Size of Work Force	Annual Average Wages	Intensity
Alabama	28	18	35	28	33	38	28	33	43
Alaska	46	11	38	47	8	34	51	8	33
Arizona	20	27	22	18	5	14	20	19	18
Arkansas	39	46	43	25	18	19	41	46	48
California	1	7	8	1	3	8	1	4	15
Colorado	7	6	1	13	9	2	12	27	2
Connecticut	22	5	19	20	4	9	23	2	19
Delaware	30	2	3	41	12	15	36	6	4
District of Columbia	33	10	6	26	27	1	35	11	5
Florida	4	17	16	7	30	31	4	28	28
Georgia	6	38	7	10	46	13	13	24	21
Guam	53	53	53	53	53	53	53	50	47
Hawaii	44	14	39	38	13	26	48	13	44
Idaho	32	44	11	45	22	43	43	45	29
Illinois	3	28	9	4	11	16	5	7	26
Indiana	23	36	33	16	41	28	24	31	45
Iowa	27	33	26	27	32	32	29	36	35
Kansas	34	26	34	24	40	21	26	21	25
Kentucky	29	45	37	33	26	41	27	37	38
Louisiana	37	35	42	34	43	47	34	40	50
Maine	40	39	36	44	49	39	42	49	31
Maryland	9	1	4	15	16	10	15	9	10
Massachusetts	11	12	10	11	6	6	7	5	7
Michigan	14	32	24	14	29	35	16	10	40
Minnesota	8	15	2	21	17	30	17	14	14
Mississippi	41	23	46	37	50	45	46	41	54
Missouri	19	24	23	17	10	25	18	18	27
Montana	48	47	47	48	36	46	49	47	36
Nebraska	36	30	31	32	31	22	31	43	16
Nevada	43	41	45	42	37	48	37	32	42
New Hampshire	31	40	13	39	15	33	39	16	24
New Jersey	13	4	18	9	2	5	8	1	12
New Mexico	35	37	21	35	39	24	40	35	37
New York	2	9	17	3	1	12	3	3	20
North Carolina	18	13	30	12	24	23	14	17	22
North Dakota	50	50	50	49	44	42	33	54	1
Ohio	15	20	28	5	28	17	10	25	32
Oklahoma	25	34	20	23	48	18	30	52	34
Oregon	16	22	5	29	20	37	21	34	11
Pennsylvania	10	3	25	6	19	20	6	20	23
Puerto Rico	45	48	49	40	51	44	45	51	52
Rhode Island	51	51	51	36	7	4	47	15	41
South Carolina	38	19	44	30	42	40	32	38	46
South Dakota	52	52	52	50	45	50	38	53	6
Tennessee	21	43	29	22	25	36	22	30	39
Texas	5	25	27	2	23	11	2	12	17
Utah	26	21	12	31	21	27	25	42	9
Vermont	49	31	48	43	35	7	44	29	8
Virgin Islands	54	54	54	54	54	54	54	39	49
Virginia	12	8	14	8	14	3	11	23	13
Washington	17	16	15	52	52	52	9	22	3
West Virginia	42	29	41	46	38	49	50	44	53
Wisconsin	24	42	32	19	34	29	19	26	30
Wyoming	47	49	40	51	47	51	52	48	51

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